

**BIAXIALLY ORIENTED POLYESTER FILM
AND LAMINATES THEREOF WITH COPPER**

ABSTRACT

Disclosed are biaxially oriented polyester film produced from a polyester comprising:

- (1) diacid residues comprising at least 90 mole percent of terephthalic acid residues, naphthalenedicarboxylic acid residues or combinations thereof; and
- (2) diol residues comprising at least 90 mole percent of 1,4-cyclohexanedimethanol residues; wherein the polyester comprises a total of 100 mole percent diacid residues and a total of 100 mole percent diol residues;

wherein a film of the polyester is stretched or oriented at stretch ratios and stretch temperatures that satisfy the equation $(27 \cdot R) - (1.3 \cdot (T - T_g)) \geq 27$, where T is the average of the machine and transverse direction stretch temperatures in degrees Celsius, T_g is the glass transition temperature of the polymer film in degrees Celsius and R is the average of the machine and transverse direction stretch ratios and the stretched film is subsequently heat-set at an actual film temperature of from 260°C to T_m , wherein T_m is the melting point of the polyester as measured by differential scanning calorimetry (DSC), while maintaining the dimensions of the stretched film.